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ABSTRACT

This is the final report of an 8-month-long project undertaken in February 1985 to study existing preservation activities within Chicago's Center for Research Libraries (CRL) compare local practices with programs in similar organizations, and make recommendations for an effective preservation program to be instituted. The background and methodology of the study are discussed; general findings of the five study task forces are presented; a preservation program concentrating on the components of disaster preparedness, educational resources, environmental control, conversion to/replacement by microform, conservation, and management is proposed; implementation options are discussed; and three prioritized 5-year plans are presented for funding the study team's recommendations. Appended is the report of the Task Force on the Condition of the Collections Preservation Planning Program. (KM)

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EDITORS NOTES ON THIS PUBLICATION SERIES

This final report is one of ten in a series resulting from libraries conducting the OMS **Preservation Planning Program** (PPP). A two-year grant from the National Endowment for the Humanities enabled the OMS to select and work with ten Association of Research Libraries members as they conducted the **Preservation Planning Program** and served as demonstration sites for other libraries in their areas. Applications from interested libraries were screened in Fall 1984, and ten libraries were chosen to conduct PPP self-studies from 1984 to 1986.

The **Preservation Planning Program** is designed to put self-help tools into the hands of library staff responsible for developing plans and procedures for preserving library materials. A typical library takes from four to six months to complete the Program, which involves the cooperation of 25 to 30 staff members. Using a structured planning procedure, a manual, and an extensive resource notebook, library staff prepare a detailed action plan for local preservation program development for the next three to five years, with the on-site assistance of a librarian-consultant trained by the Office of Management Studies.

Most PPP final reports begin with a discussion of the background of the institution and the external factors related to the current preservation situation. Task force reports then provide details on the specific concerns and interests of the individual sites. In a final section, libraries lay out their implementation plans.

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FINAL REPORT

OF THE

PRESERVATION PLANNING PROGRAM

STUDY TEAM

* * *

Submitted to Donald B. Simpson, President

by the

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August 29, 1986

This project was supported in part by the National Endowment for the Humanities and the Association for Research Libraries Office of Management Studies.

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BACKGROUND

The 1983/84 ARL Statistics reports that the Center's collection contains 3,464,622 volumes and 1,006,727 microforms, excluding the materials housed on behalf of the four area studies microform projects administered by CRL. Approximately two-thirds of the collection is comprised of infrequently used materials deposited by member institutions seeking to retain access to material they no longer wished to house locally. Depository, exchange, and direct purchase programs have built a collection that supplements and complements the holdings of the major research libraries of North America. Many of the collection program components, with their emphases on particular areas of the world (e.g., PL480 and non-U.S. imprints) or particular publication dates (e.g., books from the late 1800s and early 1900s) result in the Center's housing items printed on poor quality paper and constructed using inadequate procedures. The CRL Collection Policy, by its very nature, virtually dictates that materials with major needs for preservation and conservation are acquired.

CRL's preservation involvement dates from its founding. Implicit in the Center's acceptance of deposits is the idea that materials will be available indefinitely. The original Center facility on Cottage Grove Avenue was designed and constructed with wells for a planetary camera for microfilming; but, since the University of Chicago's Photoduplication Department, established in the 1930s, was operating in close proximity with excess capacity, the Center elected not to equip its own microfilming operation.

The special microform projects administered by the Center include coherent, organized, and focused microfilming programs from which the staff has developed substantial preservation-related experience. The Center, on behalf of the projects in Africana, Latin American, South Asian, and Southeast Asian area studies, and foreign newspapers, acquires materials of interest in the respective geographic regions and produces preservation master negatives and positive prints for loan and sale.

Because of its unique mission, its collection, and its preservation experience and interest, the Center, in October 1984, applied for and was named one of ten demonstration sites for the Association of Research Libraries Office of Management Studies Preservation Planning Program. This program was funded in part by the National Endowment for the Humanities.

The Center's President appointed and charged the study team during February 1985. The first phase of the project, which included orienting study team members and staff plus compiling a background study, was completed in July. The subsequent appointment of task forces to concentrate on particular aspects of the problem, their data collection, analyses, and report writing were completed in October 1985. This the Study Team's final report, constitutes the final phase of the project.

METHODOLOGY

As the Manual which is made available to participants states, the Preservation Planning Program (PPP) "does not by itself solve problems or create new preservation activities. Rather the Program initiates a process of recognizing and responding to preservation needs that should continue long after the study is completed." (p. 5).

The Office of Management Studies (OMS) of the Association of Research Libraries (ARL) has developed the program, which has three major phases:

1. Orientation to study and preparation of background paper
2. Task Force activities and preparation of T.F. reports
3. Analysis of data and preparation and submission of final report

Following the outline suggested in the Manual, the Study Team initially prepared a Background Paper detailing the history and mission of The Center, its physical facilities, its collections, and its past and present preservation activities. The report also included the Study Team's planning assumptions: assessment of the local problem, institutional and fiscal constraints, major strengths and resources, and study priorities.

With the Background Paper available as a resource document, the Study Team (in discussion with OMS consultants) considered The Center's Task Force needs.

Differences between The Center and other U.S. academic research libraries (noted in this Report's Introduction) raised questions about the viability of the "standardized" approach to preservation planning. Specifically, the Study Team considered the possible need for a Task Force on Cooperation, whose purpose would be to (1) assess the current preservation activities being carried on at CRL member institutions and (2) consider and make recommedations on how CRL efforts could be coordinated with these. After substantial discussion, the Study Team agreed that such work would more properly be accomplished within the resultant Preservation Program, rather than PPP.

The ARL-OMS Program recommends five Task Forces: (1) Condition of collections; (2) Environmental conditions; (3) Disaster control; (4) Organization; (5) Resources. The Center's Study Team agreed that all five were necessary to successful completion of the Program. (Task Force Reports are included in their entirety as Appendices A-E.) This Final Report is based principally on analysis and priority ordering of the data and recommendations contained in the Task Force reports.

THE TASK FORCES: APPOINTMENT AND GENERAL FINDINGS

The study team wrote task force charges and nominated staff to serve on the task forces such that each task force was chaired by a member of the study team, except for the study team chair. The President appointed the task force members in July 1985. Work began immediately and concluded with the submission of the task force reports in November 1985 (included as Appendices A-E. The task forces included a significant portion of the entire Center staffing.

Each task force collected data, analyzed findings, and prepared recommendations to the Study Team. The findings of each task force are summarized below:

Collections Conditions

The task force on the condition of the collections examined the following: catalogued serials and separates and compacted foreign documents; dissertations; textbooks; college catalogues; and state documents. Collections consisting primarily of relatively recent materials, such as current serials and documents, were not examined. The children's book collection was sampled primarily for date, and the collection of newsprint newspapers was not examined for physical condition at all, since newsprint prior to about 1950 would predictably be in at least a semi-deteriorated condition. The following table summarizes the results of the ca. 1500 samples taken:

Combined Table

	Catalogued collection	Dissertations	Text books	College catalogs	State documents	TOTAL
Total sample	386	361	318	226	259	1550
PAPER						
Breaks on 1st fold	91(24%)	43(12%)	102(32%)	23(10%)	3(1%)	262(17%)
Breaks on 2nd - 5th fold	50(13%)	47(15%)	105(33%)	33(15%)	33(13%)	268(17%)
Survives 5 folds	245(63%)	271(75%)	111(34%)	170(75%)	223(86%)	1020(66%)
BINDING						
Casebound, OK	167(43%)	14(4%)	257(81%)	15(7%)	63(24%)	516(33%)
Casebound, defective	66(17%)	- -	25(8%)	3(5%)	- -	94(6%)
Paperbound, OK	113(29%)	191(53%)	35(11%)	140(62%)	96(37%)	575(37%)
Paperbound, defective	40(10%)	42(12%)	5(1%)	68(30%)	17(7%)	172(11%)
No binding	- -	114(31%)	- -	- -	84(31%)	198(13%)

Combined Table, continued

	Catalogued collection	Disser-tations	Text books	College catalogs	State documents	TOTAL
PAGES						
Loose pages	35(9%)	35(8%)	21(7%)	13(6%)	5(2%)	109(7%)
No loose pages	351(91%)	326(90%)	297(93%)	213(94%)	254(95%)	1441(93%)
MOLD, ROT OR INSECTS						
Yes	4(1%)	- -	6(2%)	1(.5%)	2(1%)	13 (.8%)
No	382(99%)	361(100%)	312(98%)	225(99.5%)	257(99%)	1537(99.2%)

Note: Percentages may not always add up to 100% due to rounding.

The results of the survey were well within expectations. A total of 34% of the material was found to be on embrittled paper; this is consonant with what is known about the collection, and what has been found in surveys of other libraries. Six percent of the casebound volumes have defects, but about 60% of the collection is unbound or in paperback format; this points to the need for an improved method of handling loose issues.

Shelving conditions in general are satisfactory, with the major exception of the state documents collection. Instances of mold, rot, or insect damage are negligible, with the exception of one group of materials transferred from former warehouse space.

Newsprint newspapers: bibliographic sampling to determine the availability on microfilm of those titles held by the Center in newsprint only was done from the Center's newspaper catalogue and Newspapers in Microform. The results show that approximately 50% of the existing newsprint collection is not yet available on film, and of this the greatest part is the collection of U.S. ethnic newspapers.

Building Environmental Conditions

In general, the task force found that air quality in both buildings was good, there was no evidence of pests, mold, etc., shelving was in serviceable condition, and cleanliness of the floors was adequately maintained. Lack of adequate shelving was evidenced on Cottage Grove levels 3 and 7, Cottage Grove office/storage areas, and Kenwood 4; boxed and improperly stacked materials in these locations needs to be unpacked, reshelved or discarded. Also, dusting of shelves in both buildings was not being accomplished and should be provided. Finally, the Kenwood building did not have a particulate matter filtering subsystem, and this addition is probably necessary to assure adequate preservation of library materials.

Regarding temperature controls, the task force found that temperatures in both buildings generally met the ARL recommended 65 plus or minus five degrees Fahrenheit criterion. However, the original intent for CRL collections to be

housed at 55 plus or minus five degrees Fahrenheit was not being met. The group questioned whether the Center's criterion was justifiable given human comfort, utility cost, and material inflow and egress problems.

Humidity levels at the recommended 50 plus or minus five percent for non-microform materials were being maintained adequately in the Cottage Grove facility. However, humidity levels in the Kenwood facility were too high, never falling below the recommended maximum. The worst situation was observed on Kenwood level 4, where humidity averaged over 60 percent. The task force felt that better individal stack level humidity control at Kenwood and the unpacking on higher-moisture content materials on the fourth floor there could rectify the problem.

A more serious, long-range problem is the current storage of microforms in the same environmental conditions, humidity-wise, as for other materials. The task force felt that microforms should be isolated on floors where the humiditiy could be maintained at a recommended 35 plus or minus five percent. Lighting, in terms of foot candles, in both buildings was found to be well below the 30 to 50 foot-candle level considered acceptable by ARL. In Cottage Grove, the incandescent lights were usually turned off when not in use and, when on, emitted very low levels of ultraviolet radiation. At Kenwood, the fluorescent stack lights were frequently not turned off during working hours, and were found to produce slightly more ultraviolet radiation (88 u-watts) than the recommended maximum (75 to 85 u-watts). The task force found that the former condition probably couldn't be corrected because of the heavier paging and shelving activity, but that the latter could be brought within acceptable limits by replacing the bulbs with different tubes as they burned out.

Finally, the task force examined the criteria used by the University of Chicago Regenstein Library Photoduplication Department for temperature and humidity and found that these were acceptable for storage of the Center's master microfilm negatives. Temperature was maintained at a constant 68 degrees Fahrenheit, and humidity at 40 plus or minus three percent. Because the films are stored in metal containers, no adverse lighting conditions were found to exist.

Disaster Control

The Center has been fortunate to date in having had only minor disasters (primarily floods); these have not resulted in any substantial unrecoverable losses from its collections. The Center has never had a fire emergency or been exposed to structural hazards. Cases of vandalism were mainly against the building itself, e.g. broken windows, broken locks, damaged alarm system, etc., and not against the Center's collections. Floods that occurred in both buildings were of modest proportions. The Kenwood building had minor flood occurrences twice in 1985 due to tampering with the humidifier. The Cottage Grove building has had its share of floods--negligence and structural leaks being the foremost causes. The biggest flood, by CRL standards, took place in July 1980 and resulted in soaking of some materials from tier 5 to tier 1 in the Cottage Grove building.

All the past disasters, although minor, revealed the absolute necessity of a full-fledged plan for disaster preparedness, response, and recovery. The Center for Research Libraries has had only brief sections in its Personnel Manual relating to the evacuation of its buildings in fire emergencies. Organizationally the Center has never had any person(s) responsible for regular monitoring of its buildings for dangerous conditions or for coordinating recovery operations. The Task Force has identified the need for a well-coordinated, concerted preparedness effort, with a staff position or committee supervising it.

The Disaster Control Task Force has identified conditions that have potential for disaster: e.g., open stairs at the Cottage Grove building, absence of sprinklers, inadequate lighting on CG stairs, materials on CG's 7th tier placed directly on the floor (making them more vulnerable to water damage), some master negatives stored on site, total lack of disaster recovery equipment, to name a few.

One of the findings of the Task Force that deserves special mention is the general lack of staff education aimed at its overall preparedness and timely and efficient response to any disaster. The Task Force has identified many written materials that are extremely useful for disaster planning and for educating staff. Its final report includes a bibliography that contains citations to 37 of the most pertinent books and articles on the subject.

To alleviate the dire need for disaster recovery equipment, the Task Force has identified potential sources for procuring such equipment and has also compiled a computerized file of recovery resources, which can be incorporated into a comprehensive preservation resources file.

Organization

The general objectives of the Organization Task Force were to study the existing preservation effort within the Center, to compare local practice with programs in similar organizations, and to make recommendations for the most effective program to be instituted.

The first charge was to investigate what preservation and conservation activities are performed, identify which staff in which departments do the work, and try to isolate expenditures for staff and materials.

The task force members agreed that the most effective method of accomplishing the first charge was to interview staff in all positions that involve the physical handling of materials. Most such staff specialize in types of materials, for examples, currently received serials, materials deposited into the cataloged collection, or materials deposited into uncataloged collections. Interviews were conducted with groups of people who work with the same kinds of material.

Interviewees were asked what kinds of repair or preservation tasks they perform, what percent of their time is spent in such work, what supplies they use, whether or not they receive training in conservation practices, and who makes the decisions on what to repair. (Completed survey forms and a summary of the findings are included in the Organization Task Force's report.)

The task force wrote to preservation administrators in research libraries for information on their programs. Materials collected in response to this survey include organization charts, job descriptions and planning documents.

The task force held a series of meetings to analyze data collected in interviews and from survey responses and to formulate its recommendations.

The task force's examination of Center activities confirms that repair and some preservation practices are performed throughout all operational departments of the Center. Each staff member has a "repair consciousness," that is, is aware that many paper and microform materials he/she handles need repair attention. To the limits of time and training, staff members do perform various repairs. However, there is no organized training program for those who make decisions and do repairs and no standardization of techniques or supplies.

Responses from preservation administrators indicate that their units are variously placed within organizations and that many programs are in the formative stages or are very recent developments.

The most significant elements of the task force's recommendations for a preservation unit within the Center are:

- the emphasis on building upon the staff's considerable preservation awareness and experience
- the importance of a coherent preservation and repair unit rather than dispersed tasks and variant techniques
- the phased-in approach to development of the program, allowing for a conservative beginning and measured progress thereafter.

Preservation Resources

The Task Force on Preservation Resources was charged to identify preservation/conservation techniques in the Chicago metropolitan area and at the Midwest Cooperative Conservation Program, to acquire p/c information or sources of information, to research emerging technologies, to gather education/staff development information, and to inventory The Center's p/c resources and identify supplies inimical to the collection.

The Task Force members did literature searches, contacted resource people for information on practices and products, ordered catalogs from vendors of archival quality materials, contacted sales representatives for product information or specifications, interviewed staff members and observed current perservation/conservation work at The Center.

There is no formal or informal preservation/conservation education carried on at the Center at the present time. Conservation work performed is on an ad hoc basis. Material received damaged is mended at the receiving desk or turned over to a designated person in the Cataloging Department for more skilled repair. No journal articles on staff training or in-house training programs were found in Library Literature, although there are

publications available which could be used as groundwork for a staff education and development program. No Chicago metropolitan area college or junior college currently offers a formal program in library conservation.

While inventorying The Center's preservation/conservation resources and identifying supplies potentially adverse to the collection, a number of practices were found which have negative impact. There are no criteria or standards for evaluating processing supplies - - pens, mending tape, pencils, rubberbands, binders, etc. The present method of preparing uncased material for storage provides neither adequate support for the material nor protection from pollutants or abrupt changes in the environment. There is no systematic cleaning and dusting of the collection in the stacks, or cleaning and dusting of newly-received deposited materials.

The emerging technologies relating to data transmission and mass storage focus on the preservation of data. Data transmission as a preservation technique relates primarily to avoiding the damage which can result from transport and handling of the original item. At present the application of mass storage disk technology in libraries lags behind commercial applications. The CD-ROM equipment and cost of mastering combine to make this technology uneconomical for library application at present. Along with this is the question of the disk's archival shelf life. The current projected shelf life of an optical data disk is 2 to 10 years with protection against humidity. The activity in these fields is intense, and dramatic changes in costs and technology can be expected. What is not a feasible preservation practice today is possible down the road.

The Task Force was aware that a full-scale preservation/conservation program would have to be developed in stages. With this in mind, it made a number of recommendations which could be implemented without major budgetary commitment, shift in staffing patterns, or disruption of present activities, but which would be a commitment to preserving and conserving the present and future collections.

PROPOSED PRESERVATION PROGRAM

The following program, which focuses on preservation of the Center's existing collections, is primarily an expansion of preservation activities which have been carried out at CRL for many years.

The Study Team recognizes both the urgency of the preservation problem and the limited resources available. Efforts to obtain external funding to support recommendations which "carry a price tag" should be initiated immediately. Those recommendations which have no new cost or budget implications should be implemented at once, for the problem of deteriorating material increases with every passing day.

Program Assumptions

The study team articulated several assumptions that are basic to the formulation of the Center's preservation program.

1. The Center's collection is comprised of rarely-held materials. The implication of the designation "rarely-held" is that preservation should be a high priority.

2. The Center is a cooperative organization, functioning as the implementor of cooperative acquisitions, cataloging, and repository activities. Preservation is another aspect of its cooperative endeavors and is recognized as such by the Center's membership and management.

3. The primary focus of any preservation program operated by the Center must be the preservation of the Center's collections.

4. The Center is a library dedicated to lending and cannot afford to deny use of its materials to members because of condition problems.

5. The Center's Collection Policy prescribes the acquisition of less widely held library materials. Although its materials will be held for the indefinite future, the currently-held format will not necessarily be the permanently-held format. Consequently, the Center's uses of the terms "conservation" and "preservation" may differ from usage by other research libraries.

Conservation is defined in this report as the treatment of materials to ensure that the contents remain complete, legible, and usable for the indefinite future. For material in an unstable/unpreserved format (i.e., hard copy material that will be preserved or replaced with microform), conservation ensures that the contents will remain intact until the Center's holdings are converted to microform. No attempt is made to maintain the integrity of the physical item. Binding, restoration, and extensive deacidification efforts are excluded from the Center's conservation practices. Conservation techniques that the Center will employ include wrapping, enveloping, or enclosing by some method unbound or semi-disbound volumes; repairing paper tears; replacing materials by photocopying, within the limits of copyright restrictions.

The conservation of materials held in microform will be achieved primarily by the use of proper storage and handling techniques. Boxes, envelopes, and reels will be replaced as necessary. The Center will perform minor repairs, chiefly splicing.

Preservation is defined as the replacement of materials with or conversion to a format generally believed to be a long-term storage medium. The Center's primary means of preservation for the near future (i.e., the next five years) is microform. An integral part of the Center's preservation efforts is the reporting of its holdings of preservation masters to appropriate sources.

6. Several aspects of the Center differ significantly from other research libraries, which may have an impact on the preservation program: (a) Interlibrary loan generates all circulation activity; material is shipped to members by USPS or UPS; the loan period is indefinite. (b) CRL has no designated bibliographers or selectors on its staff; major acquisitions and deacquisitions decisions are made by vote of the membership. (c) By policy, those categories of materials acquired comprehensively are not cataloged. (d) The Center does descriptive cataloging only; it does not do subject cataloging or classification; call numbers are solely location devices. (e) Currently, the Center holds material only in hard copy and microformat. (f) The Center does not bind its materials.

Program Goals

The study team's proposed preservation program for the Center is designed to achieve three major goals:

- To systematically preserve the Center's collections. The study team identified the preservation orientation of the Center and the acknowledged importance of preserving the intellectual content of materials. In the plan, long-standing preservation procedures have been extracted from current operations and presented in a formal, structured program.

- To establish the Center as a viable preservation alternative for its members in regard to their preservation needs.

- To clarify and focus the Center's participation in national preservation programs that relate to its mission.

PROGRAM COMPONENTS

The study team reviewed and discussed the task force reports at length. All recommendations were compiled, emended, supplemented, and consolidated. The study team then evaluated the priority (high or low) and importance (essential or desirable) of each recommendation as the basis for designing the Center's preservation program.

The study team identified the preservation orientation of the Center's mission and acknowledged the national importance of preserving the intellectual content of its collections. In the program that follows, the long-standing preservation procedures have been extracted from the Center's current operations and presented in a more formal, structured manner.

The Center's preservation program has six components: Disaster Preparedness; Educational Resources; Environmental Control; Conversion to/Replacement by Microform; Conservation; and Management.

Disaster Preparedness

The objectives of this component are:

1. To increase staff awareness of and readiness to handle disaster conditions.

2. To equip the Center with adequate supplies and resources for disaster containment and recovery.

The study team considers two recommendations to be essential and of high priority:

1. The Center should institute a permanent disaster preparedness program. Initially, a committee should identify specific tasks that eventually should be incorporated into existing positions. Staff should be appointed to ad hoc recovery teams with designated responsibilities.

2. The Center should purchase halon fire extinquishers for areas with electrical equipment.

The study team advises that there are some very important elements in the disaster preparedness program. However, considering the historic lack of disastrous experiences and the minimal potential for natural disaster, these recommendations have been assigned a lower priority:

1. The Center should provide two disaster recovery kits for each of its buildings.

2. The Center should place and equip a disaster recovery closet with minimum essential supplies to meet and recover from disasters. The closet should include 25-30 plastic milk bottle crates.

3. The Center should purchase a reliable fireproof safe for administrative and accounting records.

4. The Center should conduct a study to determine the need to purchase an emergency backup electrical power supply.

5. The Center should enclose the stairs in the Cottage Grove building stacks. The design alternatives to achieve this range from hatches to stationary devices; all possibilities should be investigated.

Educational Resources

The objectives of this program component are as follows:

To increase and maintain staff awareness of preservation issues.
To improve the technical preservation skills of staff.
To collect and maintain information on current and emerging technology.

The study team considers the recommendations relating to this component to be essential to the program and of high priority. These recommendations follow:

In fiscal year 1987, the Center should initiate a program of staff education in preservation and material handling.

Such a program should have two dimensions. On a general level, all staff should be introduced to the subject and given some specific instructions on preservation's impact on each particular position. On another level, positions should be identified for specialized training in paper and binding and microform repair and in even more technical areas.

The Center should conduct a program to educate staff in fire prevention and the basics of disaster prevention, control and recovery.

The Center should purchase titles it lacks that are cited in the conservation/preservation bibliography compiled by the Resources Task Force. Materials in the bibliography should be commended to the staff for basic education.

The Center should continue to add to and maintain the machine readable files of resources and the associated paper files begun by the Resources Task Force.

Environmental Controls

The primary objective of this program component is: To maintain environmental and shelving conditions most conducive to the preservation of materials.

The study team considers all of the following recommendations to be essential to the program and of high priority.

Environmental conditions should be maintained at optimum levels in the stack areas of both buildings. Optimum levels are defined below:

Temperatures will be maintained between 55 and 65 degrees over the course of the year. Changes within these limits should be gradual. Humidity levels should be reduced to and maintained between 45% and 55%.

Monitoring of environmental conditions should be done on a regular and continuing basis.

Fluorescent lights in the Kenwood stacks should be replaced as they burn out with GE warm white bulbs which produce less (75 compared to 88 u-watts) ultraviolate radiation.

A systematic plan for dusting shelves on a regular schedule should be developed an implemented as soon as possible. The Center should evaluate and improve its housekeeping practices.

Current staff and the current capabilities of the physical plant can be utilized to carry out these recommendations. A permanent dusting program could be incorporated into the responsibilities of the Stacks Maintenance Department. The temperature and humidity standards can be achieved with current plant equipment and with already-owned monitoring devices.

Improvements in housekeeping, including the general cleanliness of the building and replacement of some consumables with more beneficial products is largely a matter of revising janitorial procedures.

Conversion to/Replacement by Microform

Microform is the most appropriate long-term preservation medium for the Center's foreseeable future.

The study team considers the following recommendations to be essential to the preservation program and of high priority.

The Center's primary means of preservation should be microformatting. Fiche is the preferred format for separates including textbooks and dissertations; roll film is the preferred format for serials and newspapers.

Collection Resources should coordinate preservation microforming decision-making, including evaluation of material recommended for reformatting. Designated staff in the Acquisitions Department will serve as processor and primary liaison with the Center's microform production agent(s), and material to be reformatted will be routed to this position.

There are two corollary recommendations, one relating to current and already-budgeted microformatting, the other to an expanded program.

The Center should continue the present program of filming or purchasing film of materials found to be too deteriorated to circulate. The amount currently budgeted for replacement and preservation is adequate to cover this activity. This on-demand replacement-by-microform should cover as many complete bibliographical units as practical and financially possible.

The Center should secure outside funding for a program to transfer to microform large segments of the collection.

Proposals for grant funding should be for well-defined and coherent collections, parts of collections or classes of materials. Although it may be more difficult to obtain funding to purchase replacement film than to do

original filming, producing duplicate preservation masters must be avoided; bibliographic sampling of older cataloged materials to determine the availability of microform must be done.

Conservation Practices

The objective of this program component is as follows:

To handle and shelve materials using supplies and techniques that prolong the usability of the item in the format held and that ensure that the intellectual content of the material will be preserved.

The study team considers the following recommendations to be essential to the preservation program and of high priority.

Within each operational department, specific staff should be trained in repair techniques and assigned responsibility for processing materials in need of repair. The Center should establish a repair station in the Kenwood building for material newly-received, being cataloged, or being sent out or returned from loan.

Repair duties should be assigned to current staff; workloads should be reviewed regularly to assess the need to add staff. Several persons should be trained in repair techniques so that service is always available and the worklow of the unit is not impeded. Supplies currently used in the processing of materials should be evaluated and replaced by supplies that are cost effective and responsible according to preservation concerns.

Materials being sent out on loan should be carefully checked so that deteriorated material for which there is no microform master is not circulated. Materials should be repaired or replaced as necessary.

The Center should store all master negatives off site.

Although a comprehensive remedial shelving project cannot be undertaken, individual instances of damaging conditions should be corrected as identified. Specifically, the ranges in the Cottage Grove building where material comes immediately under the top flange of shelving should be checked and any damaged items removed to other locations. Care should be taken in the shelving of new materials; loose materials should be assembled in bundles not exceeding three inches in thickness.

The Center should improve the storage techniques and systems for uncased materials during fiscal year 1987.

The study team considers the following recommendations to be essential to the preservation program; however, the limits of current resources make it necessary to consider these as lower priority than the recommendations above.

The Center should isolate all its microforms in the next building phase at the Kenwood location where lower and more beneficial humidity levies (30-40%) will be maintained.

The Center should compact the state documents collection in the manner in which older foreign documents have been compacted. This would be a labor-intensive and long-term project, but it would correct the present adverse shelving conditions and provide more shelving space.

Another recommendation in this program component is not essential to the preservation program and is a low priority. The following recommendation is primarily a strategy to minimize loss in a disaster involving water.

The Center should elevate materials on the seventh floor of the Cottage Grove building by placing them on skids or pallets.

Management

The management component provides the administrative and operational structures for all the elements of the preservation plan. The objectives of this component follow:

To establish and ensure continuation of a coordinated preservation program.

To integrate preservation practices into existing operational functions and preservation considerations into programmatic elements.

To provide for adequate communication of preservation efforts to and from all interested parties.

The study team consiers all the following recommendations to be essential and of high priority to meet these objectives.

The Center's President should appoint an in-house Oversight Committee to guide initial implementation of the recommendations in this report. This Committee will continue to function indefinitely or until a preservation officer is appointed. A proposed charge to the Committee follows.

Within two years of its appointment, the Oversight Committee should evaluate the need and timing for a preservation officer to assume primary responsibility for coordinating and expanding the Center's program. As needed, the Center should establish a separately constituted preservation department.

The Center should seek out and participate in cooperative preservation, conservation and disaster preparedness activities within the scope of its program.

The Center should communicate widely its preservation program, program elements and priorities.

The Center's Board of Directors should clarify its charge to the Collection Development Officers Advisory Panel (CDOAP) to include providing advocacy, guidance and communication on preservation concerns. One or two preservation officers from member institutions should be added to the CDOAP for expert advice.

The study team considers the following recommendation to be a desirable and high priority elements of the preservation program.

The Center should initiate a program to establish a cooperative pool of disaster recovery materials to be shared by area libraries.

The study team recommends the eventual study and evaluation of some possible enhancements to safety and environmental conditions. The following are desirable and low priority recommendations.

The Center should study the need for and feasibility of installing sprinkler systems in both buildings.

The Center should conduct a cost analysis to determine if the up-front cost of installing carbon filters at Kenwood will realize long-run savings by preventing some damage to the collection.

The Center should re-examine periodically its insurance policies with the following questions in mind: What is the purpose of its insurance coverage? Is coverage adequate for a major disaster? Do the Center have the kind of coverage it wants?

IMPLEMENTATION OPTIONS

The ability to implement all of the study team's recommendations, and to their fullest extent, is conditional upon the level of funding available. As explained previously, the study team, therefore, assigned priorities to the recommendations (either essential and high [HE], desirable and high [HD], essential and low [LE], or desirable and low [LD]) and decided which could be funded at three different levels ("minimal" at $50,000 per year, "adequate" at $125,000 per year, or "optimistic" at $250,000 per year). There expenditure levels are in addition to what is presently being spent annually on preservation related activities. Five-year plans were derived for each funding level and are presented in detail following this summary explanation.

In each of the plans a minimum of 52 percent of expenditures over the five-year period is allocated to what the study team considers the most important element of the Center's preservation efforts: the preservation of its collections by purchasing and/or replacing in microforms.

Where costs are amortized, these are done at an assumed rate of 12 percent simple interest over the period noted.

Highlights of Implementation Plan 1 ($50,000 per year)
(Summary explanation of attached list)

The "minimal" plan, funded at $50,000 per year, permits completion in their entirety the following recommendations of the study team:

1. Program Management:
   - A. Reexamination on a periodic basis of insurance policies to ensure adequate coverage for a major disaster.
   - B. Establishment of a cooperative pool of disaster recovery materials to be shared by local libraries.
   - C. Appointment of an Oversight Committee for the first two years of the plan to guide implementation of these recommendations until a permanent preservation office is established.
   - D. Establishment of a Preservation Office (with a 0.7 FTE Preservation Officer) for years 3 and following to carry on the centralized preservation functions.
   - E. Coordination of the preservation activities with the collection development efforts at all applicable levels of the organization.
   - F. Participation in cooperative preservation/conservation/disaster preparedness activities.
   - G. Communication of the Center's preservation program to the fullest extent possible.

2. Educational Resources:
   A. Education of staff on fire prevention.
   B. Education of staff on preservation and materials handling concerns.
   C. Maintenance of the machine-readable and paper files on preservation resources.
   D. Purchase of the titles on the recommended Conservation/ Preservation Bibliography.
3. Preservation by Microformatting/Replacement by Purchase:
   A. Coordination of preservation microformatting decision-making by the Collection Development Resources Division, with handling accomplished by the Acquisitions Department.
   B. Microforming of materials needing preservation at the level of $129,297 over the five-year period.

4. Conservation/Collection Management:
   A. Continuance of the storage of master negatives off-site.
   B. Processing of the backlog of unshelved materials either to appropriate shelves or to the garbage bin at the extent of 0.3 FTE student assistant over the five-year period.
   C. Planning for the isolation of microforms in the Center's next building phase.
   D. Establishment of a conservation repair station at an equipment cost of $5,000, to be amortized over a five-year period.
   E. Enhanced monitoring of incoming and outgoing materials.
   F. Correction of obvious adverse shelving conditions in year 1 with the addition of 1.0 FTE student assistant.
   G. Compacting of the state documents collection at the extent of 0.3 FTE student assistant over a five-year period.
   H. Purchase of a machine to improve storage of uncased materials.

5. Environmental Control:
   A. Maintenance of temperatures at 55-65 degrees Fahrenheit and humidity at 45-55 percent in both buildings.
   B. Systematic replacement of fluorescent lights in Kenwood with those producing more acceptable levels of ultraviolet radiation.

6. Disaster Control:
   A. Establishment of a permanent disaster preparedness activity.
   B. Equipping and maintenance of a disaster recover closet.
   C. Purchase of disaster recovery kits for both buildings.
   D. Purchase of halon fire extinguishers for areas with electrical equipment.

Preservation Planning Project: Implementation Plan 1 ($50,000/year)

Ref.	Code	Program Element	FY 1986/1987	FY1 Cost	FY 1987/1988	FY2 Cost	FY 1988/1989	FY3 Cost	FY 1989/1990	FY4 Cost	FY 1990/1991	FY5 Cost	TOTAL COST
		Program Management											
007	LO	Study install. sprinklers	(not possible at $ level)	0	(not possible at $ level)	0	(not possible at $ level)	0	(not possible at $ level)	0	(not possible at $ level)	0	0
015	LO	Reexamine insurance issues	w/r adequacy; purpose	0	at min. additional cost	0	at min. additional cost	0	at min. additional cost	0	at min. additional cost	0	0
017	HO	Coop. pool of disast. mat.	to be shared by area libs.	0	at min. additional cost	0	at min. additional cost	0	at min. additional cost	0	at min. additional cost	0	0
E21	LO	Study install. of C filters	(not possible at $ level)	0	(not possible at $ level)	0	(not possible at $ level)	0	(not possible at $ level)	0	(not possible at $ level)	0	0
027a	HE	Est. Oversight Committee	appointed by President	0	at min. additional cost	0	(replaced by 027d)	0	(replaced by 027d)	0	(replaced by 027d)	0	0
027d	HE	Est. pers. Preserv. Off.	(not applicable FY1 & 2)	0	(not applicable FY1 & 2)	0	(.7 FTE SG 10 + 5% infl.)	18962	(.7 FTE SG 10 + 5% infl.)	19910	(.7 FTE SG 10 + 5% infl.)	20905	59777
X79	HE	Link to Coll. Dev. Panel	and Prog. Comm. of BOD	0	at min. additional cost	0	at min. additional cost	0	at min. additional cost	0	at min. additional cost	0	0
X80	HE	Partic. in coop. preserv.	within scope of program	0	at min. additional cost	0	at min. additional cost	0	at min. additional cost	0	at min. additional cost	0	0
X81	HE	Communicate preserv. prog.	elements and priorities	0	at min. additional cost	0	at min. additional cost	0	at min. additional cost	0	at min. additional cost	0	0
		Sub-total		0		0		18962		19910		20905	59777
		Educational Resources											
004	LE	Ed. staff on fire preven.	at min. additional cost	0	at min. additional cost	0	at min. additional cost	0	at min. additional cost	0	at min. additional cost	0	0
R72	HE	Ed. staff on preservation	concerns & mat. handling	0	at min. additional cost	0	at min. additional cost	0	at min. additional cost	0	at min. additional cost	0	0
R74	HE	Maint. resource files	machine-read. and paper	0	at min. additional cost	0	at min. additional cost	0	at min. additional cost	0	at min. additional cost	0	0
R78	LO	Acq. titles on bibliog.	(assumed cost)	500	(add'ns @ 10% + infl.)	53	(add'ns @ 10% + infl.)	55	(add'ns @ 10% + infl.)	58	(add'ns @ 10% + infl.)	61	726
		Sub-total		500		53		55		58		61	726
		Preserv. Microform./Replace											
027c	HE	Coord. to Coll. Dev. Div.	of pres. microformatting	0	at min. additional cost	0	at min. additional cost	0	at min. additional cost	0	at min. additional cost	0	0
P33	HE	Microformat. as primary	(assumes res. $s spent)	26609	(assumes res. $s spent)	41164	(assumes res. $s spent)	21850	(assumes res. $s spent)	20530	(assumes res. $s spent)	19145	129297
		Sub-total		26609		41164		21850		20530		19145	129297
		Conserv./Coll. Management											
010	LO	Elev. materials on CG7	(not possible at $ level)	0	(not possible at $ level)	0	(not possible at $ level)	0	(not possible at $ level)	0	(not possible at $ level)	0	0
014	HE	Store master negs. off-site	at min. additional cost	0	at min. additional cost	0	at min. additional cost	0	at min. additional cost	0	at min. additional cost	0	0
E17	HE	Shelve unshelved materials	(.3 FTE SA + 5% infl.)	3118	(.3 FTE SA + 5% infl.)	3274	(.3 FTE SA + 5% infl.)	3438	(.3 FTE SA + 5% infl.)	3609	(.3 FTE SA + 5% infl.)	3790	17229
E24	LE	Isolate microform collect.	at no add'n current exp.	0	at no add'n current exp.	0	at no add'n current exp.	0	at no add'n current exp.	0	at no add'n current exp.	0	0
027b	HE	Repair materials in need	(assumed amortized cost)	1762	(assumed amortized cost)	1762	(assumed amortized cost)	1762	(assumed amortized cost)	1762	(assumed amortized cost)	1762	8812
P35	HE	Monitor in./out. materials	at min. additional cost	0	at min. additional cost	0	at min. additional cost	0	at min. additional cost	0	at min. additional cost	0	0
P37	HE	Correct adverse shelving	(assume 1 FTE SA; 1 FY)	10393	(project completed FY1)	0	(project completed FY1)	0	(project completed FY1)	0	(project completed FY1)	0	10393
P38	LE	Compact state doc. coll.	(.3 FTE SA + 5% infl.)	3118	(.3 FTE SA + 5% infl.)	3274	(.3 FTE SA + 5% infl.)	3438	(.3 FTE SA + 5% infl.)	3609	(.3 FTE SA + 5% infl.)	3790	17229
R73	HE	Improve uncased stor. syst.	(assumed cost)	500	(maint. @ 10% + infl.)	53	(maint. @ 10% + infl.)	55	(maint. @ 10% + infl.)	58	(maint. @ 10% + infl.)	61	727
		Sub-total		18891		8363		8692		9039		9403	54389
		Environmental Control											
E20	HE	Systematic dust. of shelves	(not possible at $ level)	0	(not possible at $ level)	0	(not possible at $ level)	0	(not possible at $ level)	0	(not possible at $ level)	0	0
E22	HE	Maint. opt. temp. & humid.	at min. additional cost	0	at min. additional cost	0	at min. additional cost	0	at min. additional cost	0	at min. additional cost	0	0
E25	HE	Use low u-v. fluor. lights	at min. additional cost	0	at min. additional cost	0	at min. additional cost	0	at min. additional cost	0	at min. additional cost	0	0
		Sub-total		0		0		0		0		0	0
		Disaster Control											
001	HE	Est. disast. prepared. act.	at min. additional cost	0	at min. additional cost	0	at min. additional cost	0	at min. additional cost	0	at min. additional cost	0	0
005	LE	Equip. disast. rec. closet	(assumed cost)	2000	(maint. @ 10% + infl.)	210	(maint. @ 10% + infl.)	221	(maint. @ 10% + infl.)	232	(maint. @ 10% + infl.)	243	2905
006	LE	Buy disast. recovery kits	(assumed cost)	800	(maint. @ 10% + infl.)	84	(maint. @ 10% + infl.)	88	(maint. @ 10% + infl.)	93	(maint. @ 10% + infl.)	97	1162
008	LO	Enclose stairs at CG	(not possible at $ level)	0	(not possible at $ level)	0	(not possible at $ level)	0	(not possible at $ level)	0	(not possible at $ level)	0	0
011	LE	Study/rec. back-up elec.	(not possible at $ level)	0	(not possible at $ level)	0	(not possible at $ level)	0	(not possible at $ level)	0	(not possible at $ level)	0	0
012	HE	Buy halon ext. for elec.	(assumed cost)	1200	(maint. @ 10% + infl.)	126	(maint. @ 10% + infl.)	132	(maint. @ 10% + infl.)	139	(maint. @ 10% + infl.)	146	1743
016	LO	Buy fire-proof safe	(not possible at $ level)	0	(not possible at $ level)	0	(not possible at $ level)	0	(not possible at $ level)	0	(not possible at $ level)	0	0
		Sub-total		4000		420		441		463		486	5810
		(COSTS NOT INCL. P33)		23391		8836		28150		29470		30855	120703
		TOTAL COSTS		50000		50000		50000		50000		50000	250000
											% to P33 - preserv. microformat.		52

Preservati· Planning, Implementation Plan 2 ($125,000/year)
Preservat anning Project, Implementation Plan 2 ($125,000/year)

Ref.	Code	Program Element	FY 1986/1987	FY1 Cost FY 1987/1988	FY2 Cost FY 1988/1989	FY3 Cost FY 1989/1990	FY4 Cost FY 1990/1991	FY5 Cost	TOTAL COST
		Program Management							
007	LD	Study install. sprinklers	(not possible at $ level)	0 (not possible at $ level)	0 (not possible at $ level)	0 (not possible at $ level)	0 (not possible at $ level)	0	0
015	LD	Reexamine insurance issues	at min. additional cost	0 at min. additional cost	0 at min. additional cost	0 at min. additional cost	0 at min. additional cost	0	0
017	MD	Coop. pool of disast. mat.	at min. additional cost	0 at min. additional cost	0 at min. additional cost	0 at min. additional cost	0 at min. additional cost	0	0
E21	LD	Study install. of C filters	(assumed amortized cost)	7754 (assumed amortized cost)	7754 (assumed amortized cost)	7754 (assumed amortized cost)	7754 (assumed amortized cost)	7754	38772
027a	ME	Est. Oversight Committee	appointed by President	0 at min. additional cost	0 (replaced by 027d)	0 (replaced by 027d)	0 (replaced by 027d)	0	0
027d	ME	Est. pers. Preserv. Off.	(not applicable FY1 & 2)	0 (not applicable FY1 & 2)	0 (1.0 FTE SG 10 + 5% infl.)	27008 (1.0 FTE SG 10 + 5% infl.)	28443 (1.0 FTE SG 10 + 5% infl.)	29865	85316
X79	ME	Link to Coll. Dev. Panel	at min. additional cost	0 at min. additional cost	0 at min. additional cost	0 at min. additional cost	0 at min. additional cost	0	0
X80	ME	Partic. in coop. preserv.	at min. additional cost	0 at min. additional cost	0 at min. additional cost	0 at min. additional cost	0 at min. additional cost	0	0
X81	ME	Communicate preserv. prog.	at min. additional cost	0 at min. additional cost	0 at min. additional cost	0 at min. additional cost	0 at min. additional cost	0	0
		Sub-total		7754	7754	34843	36197	37619	124168
		Educational Resources							
004	LE	Ed. staff on fire preven.	at min. additional cost	0 at min. additional cost	0 at min. additional cost	0 at min. additional cost	0 at min. additional cost	0	0
R72	ME	Ed. staff on preservation	at min. additional cost	0 at min. additional cost	0 at min. additional cost	0 at min. additional cost	0 at min. additional cost	0	0
R74	ME	Maint. resource files	at min. additional cost	0 at min. additional cost	0 at min. additional cost	0 at min. additional cost	0 at min. additional cost	0	0
R78	LD	Acq. titles on bibliog.	(assumed cost)	500 (add'ns @ 10% + infl.)	53 (add'ns @ 10% + infl.)	55 (add'ns @ 10% + infl.)	58 (add'ns @ 10% + infl.)	61	726
		Sub-total		500	53	55	58	61	726
		Preserv. Microfore./Replace							
027c	ME	Coord. to Coll. Dev. Div.	at min. additional cost	0 at min. additional cost	0 at min. additional cost	0 at min. additional cost	0 at min. additional cost	0	0
P33	ME	Microforeat. as primary	(assumes res. $s spent)	87435 (assumes res. $s spent)	102283 (assumes res. $s spent)	76623 (assumes res. $s spent)	72668 (assumes res. $s spent)	70615	407624
		Sub-total		87435	102283	76623	72668	70615	407624
		Conserva./Coll. Management							
010	LD	Elev. materials on CG7	(.2 FTE SA + 5% infl.)	2079 (.2 FTE SA + 5% infl.)	2183 (.2 FTE SA + 5% infl.)	2292 (.2 FTE SA + 5% infl.)	2406 (.2 FTE SA + 5% infl.)	2527	11486
014	ME	Store master negs. off-site	at min. additional cost	0 at min. additional cost	0 at min. additional cost	0 at min. additional cost	0 at min. additional cost	0	0
E17	ME	Shelve unshelved materials	(.3 FTE SA + 5% infl.)	3118 (.3 FTE SA + 5% infl.)	3274 (.3 FTE SA + 5% infl.)	3438 (.3 FTE SA + 5% infl.)	3609 (.3 FTE SA + 5% infl.)	3790	17229
E24	LE	Isolate microfore collect.	at no add'n current exp.	0 at no add'n current exp.	0 at no add'n current exp.	0 at no add'n current exp.	0 at no add'n current exp.	0	0
027b	ME	Repair materials in need	(assumed amortized cost)	1762 (assumed amortized cost)	1762 (assumed amortized cost)	1762 (assumed amortized cost)	1762 (assumed amortized cost)	1762	8812
P35	ME	Monitor in./out. materials	at min. additional cost	0 at min. additional cost	0 at min. additional cost	0 at min. additional cost	0 at min. additional cost	0	0
P37	ME	Correct adverse shelving	(assume 1 FTE SA, 1 FY)	10393 (project completed FY1)	0 (project completed FY1)	0 (project completed FY1)	0 (project completed FY1)	0	10393
P38	LE	Compact state doc. coll.	(.3 FTE SA + 5% infl.)	3118 (.3 FTE SA + 5% infl.)	3274 (.3 FTE SA + 5% infl.)	3438 (.3 FTE SA + 5% infl.)	3609 (.3 FTE SA + 5% infl.)	3790	17229
R73	ME	Improve encased stor. syst.	(assumed cost)	500 (maint. @ 10% + infl.)	53 (maint. @ 10% + infl.)	55 (maint. @ 10% + infl.)	58 (maint. @ 10% + infl.)	61	727
		Sub-total		20970	10546	10984	11445	11929	65874
		Environmental Control							
E20	ME	Systematic dust. of shelves	(.2 FTE SA + 5% infl.)	2079 (.2 FTE SA + 5% infl.)	2183 (.2 FTE SA + 5% infl.)	2292 (.2 FTE SA + 5% infl.)	2406 (.2 FTE SA + 5% infl.)	2527	11486
E22	ME	Maint. opt. temp. & humid.	at min. additional cost	0 at min. additional cost	0 at min. additional cost	0 at min. additional cost	0 at min. additional cost	0	0
E25	ME	Use low u-v. fluor. lights	at min. additional cost	0 at min. additional cost	0 at min. additional cost	0 at min. additional cost	0 at min. additional cost	0	0
		Sub-total		2079	2183	2292	2406	2527	11486
		Disaster Control							
001	ME	Est. disast. prepared. act.	at min. additional cost	0 at min. additional cost	0 at min. additional cost	0 at min. additional cost	0 at min. additional cost	0	0
005	LE	Equip. disast. rec. closet	(assumed cost)	2000 (maint. @ 10% + infl.)	210 (maint. @ 10% + infl.)	221 (maint. @ 10% + infl.)	232 (maint. @ 10% + infl.)	243	2905
006	LE	Buy disast. recovery kits	(assumed cost)	800 (maint. @ 10% + infl.)	84 (maint. @ 10% + infl.)	88 (maint. @ 10% + infl.)	93 (maint. @ 10% + infl.)	97	1162
008	LD	Enclose stairs at CG	(not possible at $ level)	0 (not possible at $ level)	0 (not possible at $ level)	0 (not possible at $ level)	0 (not possible at $ level)	0	0
011	LE	Study/rec. back-up elec.	(assumed amortized cost)	1762 (assumed amortized cost)	1762 (assumed amortized cost)	1762 (assumed amortized cost)	1762 (assumed amortized cost)	1762	8812
012	ME	Buy halon ext. for elec.	(assumed cost)	1200 (maint. @ 10% + infl.)	126 (maint. @ 10% + infl.)	132 (maint. @ 10% + infl.)	139 (maint. @ 10% + infl.)	146	1743
016	LD	Buy fire-proof safe	(assumed cost)	500	0	0	0	0	500
		Sub-total		6262	2182	2203	2225	2249	15122
		(COSTS NOT. INCL. P33)		37565	22717	58377	52332	54385	217376
		TOTAL COSTS		125000	125000	125000	125000	125000	625000
								% to P33 - preserv. microforeat.	65

Preservation Planning Project, Implementation Plan 3 ($250,000/year)

Ref.	Code	Program Element	FY 1986/1987	FY1 Cost	FY 1987/1988	FY2 Cost	FY 1988/1989	FY3 Cost	FY 1989/1990	FY4 Cost	FY 1990/1991	FY5 Cost	TOTAL COST
		Program Management											
D07	LD	Study install. sprinklers	(assumed amortized cost)	34366	(assumed amortized cost)	34366	(assumed amortized cost)	34366	(assumed amortized cost)	34366	(assumed amortized cost)	34366	171828
D15	LD	Reexamine insurance issues	at min. additional cost	0	at min. additional cost	0	at min. additional cost	0	at min. additional cost	0	at min. additional cost	0	0
D17	HD	Coop. pool of disast. mat.	at min. additional cost	0	at min. additional cost	0	at min. additional cost	0	at min. additional cost	0	at min. additional cost	0	0
E21	LD	Study install. of C filters	(assumed amortized cost)	7754	(assumed amortized cost)	7754	(assumed amortized cost)	7754	(assumed amortized cost)	7754	(assumed amortized cost)	7754	38772
027a	HE	Est. Oversight Committee	appointed by President	0	at min. additional cost	0	(replaced by 027d)	0	(replaced by 027d)	0	(replaced by 027d)	0	0
027d	HE	Est. pers. Preserv. Off.	(not applicable FY1 & 2)	0	(not applicable FY1 & 2)	0	(1.0 FTE SG 10 + 5% infl.)	27088	(1.0 FTE SG 10 + 5% infl.)	28443	(1.0 FTE SG 10 + 5% infl.)	29865	85396
X79	HE	Link to Coll. Dev. Panel	at min. additional cost	0	at min. additional cost	0	at min. additional cost	0	at min. additional cost	0	at min. additional cost	0	0
X80	HE	Partic. in coop. preserv.	at min. additional cost	0	at min. additional cost	0	at min. additional cost	0	at min. additional cost	0	at min. additional cost	0	0
X81	HE	Communicate preserv. prog.	at min. additional cost	0	at min. additional cost	0	at min. additional cost	0	at min. additional cost	0	at min. additional cost	0	0
		Sub-total		42120		42120		69208		70563		71985	295996
		Educational Resources											
D04	LE	Ed. staff on fire preven.	at min. additional cost	0	at min. additional cost	0	at min. additional cost	0	at min. additional cost	0	at min. additional cost	0	0
R72	HE	Ed. staff on preservation	at min. additional cost	0	at min. additional cost	0	at min. additional cost	0	at min. additional cost	0	at min. additional cost	0	0
R74	HE	Maint. resource files	at min. additional cost	0	at min. additional cost	0	at min. additional cost	0	at min. additional cost	0	at min. additional cost	0	0
R78	LD	Acq. titles on bibliog.	(assumed cost)	500	(add'ns @ 10% + infl.)	53	(add'ns @ 10% + infl.)	55	(add'ns @ 10% + infl.)	58	(add'ns @ 10% + infl.)	61	726
		Sub-total		500		53		55		58		61	726
		Preserv. Microfocs./Replace											
027c	HE	Coord. to Coll. Dev. Div.	at min. additional cost	0	at min. additional cost	0	at min. additional cost	0	at min. additional cost	0	at min. additional cost	0	0
P33	HE	Microforeat. as primary	(assumes res. $s spent)	146347	(assumes res. $s spent)	161195	(assumes res. $s spent)	133535	(assumes res. $s spent)	131580	(assumes res. $s spent)	129528	702185
		Sub-total		146347		161195		133535		131580		129528	702185
		Conserve./Coll. Management											
D10	LD	Elev. materials on C67	(.2 FTE SA + 5% infl.)	2079	(.2 FTE SA + 5% infl.)	2183	(.2 FTE SA + 5% infl.)	2292	(.2 FTE SA + 5% infl.)	2406	(.2 FTE SA + 5% infl.)	2527	11486
D14	HE	Store master negs. off-site	at min. additional cost	0	at min. additional cost	0	at min. additional cost	0	at min. additional cost	0	at min. additional cost	0	0
E17	HE	Shelve unshelved materials	(.3 FTE SA + 5% infl.)	3118	(.3 FTE SA + 5% infl.)	3274	(.3 FTE SA + 5% infl.)	3438	(.3 FTE SA + 5% infl.)	3609	(.3 FTE SA + 5% infl.)	3790	17229
E24	LE	Isolate microform collect.	at no add'n current exp.	0	at no add'n current exp.	0	at no add'n current exp.	0	at no add'n current exp.	0	at no add'n current exp.	0	0
027b	HE	Repair materials in need	(assumed amortized cost)	1762	(assumed amortized cost)	1762	(assumed amortized cost)	1762	(assumed amortized cost)	1762	(assumed amortized cost)	1762	8812
P35	HE	Monitor in./out. materials	at min. additional cost	0	at min. additional cost	0	at min. additional cost	0	at min. additional cost	0	at min. additional cost	0	0
P37	HE	Correct adverse shelving	(assume 1 FTE SA, 1 FY)	10393	(project completed FY1)	0	(project completed FY1)	0	(project completed FY1)	0	(project completed FY1)	0	10393
P38	LE	Compact state doc. coll.	(.3 FTE SA + 5% infl.)	3118	(.3 FTE SA + 5% infl.)	3274	(.3 FTE SA + 5% infl.)	3438	(.3 FTE SA + 5% infl.)	3609	(.3 FTE SA + 5% infl.)	3790	17229
R73	HE	Improve encased stor. syst.	(assumed cost)	500	(maint. @ 10% + infl.)	53	(maint. @ 10% + infl.)	55	(maint. @ 10% + infl.)	58	(maint. @ 10% + infl.)	61	727
		Sub-total		20970		10544		10984		11445		11929	65874
		Environmental Control											
E20	HE	Systematic dust. of shelves	(.2 FTE SA + 5% infl.)	2079	(.2 FTE SA + 5% infl.)	2183	(.2 FTE SA + 5% infl.)	2292	(.2 FTE SA + 5% infl.)	2406	(.2 FTE SA + 5% infl.)	2527	11486
E22	HE	Maint. opt. temp. & humid.	at min. additional cost	0	at min. additional cost	0	at min. additional cost	0	at min. additional cost	0	at min. additional cost	0	0
E25	HE	Use low u-v. fluor. lights	at min. additional cost	0	at min. additional cost	0	at min. additional cost	0	at min. additional cost	0	at min. additional cost	0	0
		Sub-total		2079		2183		2292		2406		2527	11486
		Disaster Control											
D01	HE	Est. disast. prepared. act.	at min. additional cost	0	at min. additional cost	0	at min. additional cost	0	at min. additional cost	0	at min. additional cost	0	0
D05	LE	Equip. disast. rec. closet	(assumed cost)	2000	(maint. @ 10% + infl.)	210	(maint. @ 10% + infl.)	221	(maint. @ 10% + infl.)	232	(maint. @ 10% + infl.)	243	2905
D06	LE	Buy disast. recovery kits	(assumed cost)	800	(maint. @ 10% + infl.)	84	(maint. @ 10% + infl.)	88	(maint. @ 10% + infl.)	93	(maint. @ 10% + infl.)	97	1162
D08	LD	Enclose stairs at C6	(assumed amortized cost)	24673	(assumed amortized cost)	24673	(assumed amortized cost)	24673	(assumed amortized cost)	24673	(assumed amortized cost)	24673	123364
D11	LE	Study/rec. back-up elec.	(assumed amortized cost)	8812	(assumed amortized cost)	8812	(assumed amortized cost)	8812	(assumed amortized cost)	8812	(assumed amortized cost)	8812	44059
D12	HE	But halon ext. for elec.	(assumed cost)	1200	(maint. @ 10% + infl.)	126	(maint. @ 10% + infl.)	132	(maint. @ 10% + infl.)	139	(maint. @ 10% + infl.)	146	1743
D16	LD	Buy fire-proof safe	(assumed cost)	500		0		0		0		0	500
		Sub-total		37984		33904		33925		33940		33971	173733
		TOTAL COSTS		103653		88805		116465		118420		120472	547815
				250000		250000		250000		250000		250000	1250000
											% to P33 - preserv. microformat.		56

APPENDIX A

CENTER FOR RESEARCH LIBRARIES

REPORT

TASK FORCE ON THE CONDITION OF THE COLLECTIONS
PRESERVATION PLANNING PROGRAM

Task Force Members

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General remarks

A total of 1550 samples were taken from the major collections, between August 14 ans November 6, by the task force, working in pairs, examiner and recorder. Different question sheets were developed for the various collections (See Appendix A: Methodology). Information as to date, and in one case country of origin, was included, not so much for its relevance to preservation (although it is relevant) as to improve our knowledge of the collections and enable us to describe them better, particularly the uncatalogued collections(see Appendix B)

The collections sampled were: catalogued serials and separate (including compacted foreign documents); dissertations; textbooks, college catalogues; and state documents. No attempt was made to sample collections consisting entirely of materials of recent date, such as the current serials and South Asian monographs, nor (for reasons of time and the difficulty of finding a suitable method) were smaller older collections, such as foreign bank publications, or stored material examined. The five collections sampled represent the vast majority of Center holdings that could and in fact do include deteriorated materials.

There was one major exceptions; the collection of newsprint newspapers. This was not examined for its physical condition, since it was taken for granted that practically all of the newsprint was in at least a partially deteriorated condition. Instead, the collection was sampled bibliographically to determine the availability on microfilm of files held by CRL in newsprint only.

A minor exception was the children's book collection.Since this consists primarily of fairly recent materials, it was checked rather summarily for date.

Table 1. Combined table

	Catalogued collection	Dissertations	Textbooks	College catalogs	State documents	TOTAL
Total sample	386	361	312	225	266	1550
PAPER						
Breaks on 1st. fold:	91 (24%)	43 (12%)	102 (32%)	23 (10%)	3 (1%)	262 (17%)
Breaks on 2nd.-5th. fold:	50 (13%)	47 (15%)	105 (33%)	33 (15%)	33 (13%)	268 (17%)
Survives 5 folds:	245 (63%)	271 (75%)	111 (34%)	170 (75%)	223 (86%)	1020 (66%)
BINDING						
Casebound, OK	167 (43%)	14 (4%)	257 (81%)	15 (7%)	63 (24%)	516 (33%)
Casebound, defective:	66 (17%)	- -	25 (8%)	3 (5%)	- -	94 (6%)
Paperbound, OK:	113 (29%)	191 (53%)	35 (11%)	140 (62%)	96 (37%)	575 (37%)
Paperbound, defective:	40 (10%)	42 (12%)	5 (2%)	68 (30%)	17 (7%)	172 (11%)
No binding:	- -	114 (31%)	- -	- -	84 (31%)	198 (13%)
PAGES						
Loose pages:	35 (9%)	35 (9%)	21 (7%)	13 (6%)	5 (2%)	109 (7%)
No loose pages:	351 (91%)	326 (90%)	297 (93%)	213 (94%)	254 (95%)	1441 (93%)
MOLD, RUT OR INSECTS						
Yes:	4 (1%)	- -	6 (2%)	1 (.5%)	1 (.4%)	12 (.8%)
No:	382 (99%)	361 (100%)	312 (98%)	225 (99.5%)	265 (99.6%)	1537 (99.2%)

Note: Percentages may not always add up to 100%, due to rounding.

Table 1 (Combined table) shows the results of the sampling of the five major collections, with totals. Slightly different question sheets were used in surveying the collections, depending on their known or supposed composition; the points looked for will be apparent in the tables for the separate collections.

Some information has been conflated in the combined table, and date (and for dussertations place of origin), have been omitted entirely (see Appendix B). The term 'no cover' may need an explanation. This means a publication consisting of paper folded, sown or stapled together, all of the paper being of the same type. It does not mean the cover is missing. Publications of this type were noted, since, lacking any sort of protection, they are more susceptible to damge from use and/or adverse shelving conditions than publications having even no more than a cover of heavier paper.

None of the results are particularly startling. The total of 34% of material on very brittle or somewhat brittle paper is consonant with what we know of the collections, and with what has been found in surveys of other libraries. The fact that only 39% of the material is hard-bound might startle someone who is more familiar with other large research collections, but the results of the sampling do not suggest that this had an unduly deleterious effect to the present time. Binding is a protection against wear and tear in use and handling, not against the passage of the years.

The collections

Catalogued serials and separates and compacted foreign documents (Table 2)

Estimated size of collection: 700,000+ Sample size 386

	Number	Percent
PAPER		
Breaks on first fold	91	23.6¢
Breaks on 2nd.-5th. folds	50	13.0%
Survives five folds	245	63.5%
BINDING		
Casebound, intact	167	43.3%
Casebound, hinge(s) broken	19	4.9%
Casebound, joint(s) broken	46	11.9%
Casebound, spine loose or missing	39	10.1%
Paperbound, OK	113	29.3%
Paperbound, cover loose, torn, or brittle	40	10.4%
PAGES		
Loose pages	35	9.1%
No loose pages	351	90.9%
MOLD, ROT OR INSECT DAMAGE		
Yes	4	1.0%
No	382	99.0%
DATE		
Pre-1701	0	.0%
1701-1800	1	.3%
1801-1850	8	2.1%
1851-1900	54	14.0%
1901-1950	171	44.3%
1951+	152	39.4%

TABLE 2. CATALOGUED COLLECTION

These two collections were taken together, since in any other respect than the fact that the documents were published by government agencies or under government sponsorship, they resemble each other closely.

A total of 386 samples were examined for the points listed in the table (note: percentages in the case of case binding defects add to more than a hundred, since any individual volume could have more than one thing wrong with it. The total percentage of defective binding is 17%). The proportion of material on brittle paper is much the same as that for the collections as a whole. The proportion of bound to unbound volumes is 60-40, and reflects the longstanding policy of not binding serials and the increasing number of relatively recent serial files now found in this collection.

Foreign doctoral dissertations (Table 3)

Estimated size of collection: 600,000+ Sample size 361

	Number	Percent
PAPER		
Breaks on first fold	43	11.9%
Breaks on 2nd.-5th. folds	47	13.0%
Survives five folds	271	75.1%
COVER		
Cracked or breaks on first fold	26	7.2%
Breaks on 2nd.-5th. folds	16	4.4%
Survives five folds	191	52.9%
No cover	114	31.6%
Casebound, intact	14	3.9%
Casebound, defective	0	.0%
PAGES		
Loose pages	35	9.7%
No loose pages	326	90.3%
PLACE OF PUBLICATION		
Germany	208	57.6%
France	73	20.2%
Other	80	22.2%
DATE		
Pre-1876	15	4.2%
1876-1900	34	9.4%
1901-1925	63	17.5%
1926-1950	74	20.5%
1951+	175	48.5%

TABLE 3. DISSERTATIONS

361 samples were taken. It is interesting to note that the Center's direct acquisitions in the dissertation field are now close to outnumbering the older deposited material. Nearly half the collection is 1951 or later in date. Since the brittle paper percentage is 25% and this must fall in the older part of the collection, as do the majority of the 30% of the collection without any sort of protective covers, it is evident that this part

of the dissertation collection is probably the largest single group of endangered materials in the Center.

Textbooks (Table 4)

Estimated size of collection: 85,000+ Sample size 318

	Number	Percent
PAPER		
Breaks on first fold	102	32.1%
Breaks on 2nd.-5th. folds	105	33.0%
Survives five folds	111	34.9%
BINDING		
Casebound, intact	257	80.8%
Casebound, defective	25	7.9%
Paperbound, intact	35	11.0%
Paperbound, defective	5	1.6%
PAGES		
Loose pages	21	6.6%
No loose pages	297	93.4%
MOLD, ROT OR INSECT DAMAGE		
Yes	6	1.98%
No	312	98.1%
DATE		
Pre-1801	0	.0%
1801-1850	13	4.1%
1851-1900	59	18.6%
1901-1950	189	59.4%
1951+	55	17.3%
No date found	2	.6%

TABLE 4. TEXTBOOKS

318 samples were taken. The surprise here is the high proportion, about two-thirds, of the volumes found to have embrittled paper. Althougha larger proportion of this collection than of any other falls in the period where brittle paper may be expected, the percentage of brittle paper is higher than anticipated. We have no explanation for this; the environmental conditions while in the Center have been the same as for other collections. Many of the older textbooks received actual use in schools before passing to the various university libraries from which they passed to the Center, but this, one supposes, would have caused a higher incidence of loose pages and defective bindings, rather than embrittlement of the paper. It is possible that as not very highly regarded material these books may have been stored in adverse conditions before they reached the Center. The paper is protected, however; this collection has by far the largest proportion of casebound volumes, and a lower proportion of defective binding.

College catalogues (Table 5)

226 samples were taken. The percentage of brittle paper is only 25%, but 90%

of this collection is paperbound only, and of that a third is defective in some way or other.

Estimated size of collection: 125,000+ Sample size 226

	Number Number	Percent Percent
PAPER		
Breaks on first fold	23	10.18%
Breaks on 2nd.-5th. folds	33	14.6&
Survives five folds	170	75.22%
BINDING		
Casebound, intact	15	6.64%
Casebound, defective	3	1.33%
Paperbound, intact	140	61.95%
Paperbound, defective	68	30.0&
PAGES		
Loose pages	13	5.75%
No loose pages	213	94.25%
MOLD, ROT OR INSECT DAMAGE		
Yes	1	00.45%
No	225	99.6%
DATE		
Pre-1901	26	11.5%
1901+	200	88.5%

TABLE 5. COLLEGE CATALOGUES

State documents (Table 6)

Time permitted the taking of only 259 samples. Since this collection is probably the most heterogeneous in the Center, and is furthermore shelved in a heterogeneous not to say haphazard manner, this sample is really not large enough. It was also difficult, because of the shelving conditions, to have any confidence that it was really random. The situation is further complicated by the fact that in the 1952+ portion of the collection issues of volumes are not bound or assembled in any way, but stacked loose on the shelves, whereas much of the pre-1952 material is bound in some fashion or other. This results in a disproportionately high piece count for the later material, compared with its actual bulk.

The results of this sample should be accepted with considerable reservation. For example, the sample showed 0% of defective casebound volumes, but the most casula inspection of the shelves will show that there are in fact a fair number of these. It is to be noted especially that 8% of the material without covers and 6% of the paperbound items are defective. These fall principally in the post 1951 period, and the damage is due not to age deterioration, but to the shelving conditions. The excessive use of bookends and the jamming of more material onto already overcrowded shelves have created conditions that not only are seriously endangering the materials themselves, but are also hampering our abilities to service this collection.

Estimated size of collection: 700,000+ Sample size 259

	Number	Percent
PAPER		
Breaks on first fold	3	1.2%
Breaks on 2nd.-5th. folds	33	12.7%
Survives five folds	223	86.1%
BINDING		
Casebound, intact	63	24.3%
Casebound, defective	0	.0%
Paperbound, intact	96	37.1%
Paperbound, defective	17	6.6%
No cover, intact	62	23.9%
No cover, torn, creased or bent	22	8.5%
PAGES		
Loose pages	5	1.9%
No loose pages	254	98.1%
MOLD, ROT OR INSECT DAMAGE		
Yes	2	.8%
No	257	99.2%
DATE		
Pre-1952	115	44.4%
1952+	144	55.6%

TABLE 6. STATE DOCUMENTS

Newspapers (Tables 7 and 8)

No attempt was made to examine the physical condition of the newsprint newspaper files. Instead, a bibliographic sampling to determine the degree of availability on microfilm of those titles held by CRL in newsprint only was done. All newsprint files in the last edition of the Center's newspaper book catalogue which fell between 1875 and 1951 and for which the Center held no microfilm were identified. Runs of less than one month, or that consisted of scattered issues only (such as the 'post-war foreign newspaper collection') were excluded. 322 titles, approximately one-third of the total, were checked against Newspapers in Microform to determine the availability of these titles in microform, either wholly or partially. Table 7 shows the results of this. Table 8 shows these files expressed in years held and proportion available on film.

The results agree more or less with the results of a survey done in the early seventies, though this is rather an apples and oranges matter, since the earlier survey did not exclude anything, and was based on linear feet, rather than titles or years.

* This was used because the more up-to-date fiche catalogue does not segregate newspapers, and only a minuscule amount of backfile newsprint has been catalogued in recent years.

Newspaper: 322 titles

	Not on film	Partially on film	Completely on film	Total titles	Percent of all titles
Foreign	62 (50%)	5 (4%)	58 (46%	125	39%
All U.S.	100 (51%)	28 (15%)	69 (35%)	197	61%
U.S. ethnic	85 (58%)	25 (17%)	36 (24%)	127	40%
U.S. other	15 (29%)	3 (5%)	33 (55%)	51	16%
Total	162	33	127	322	
% of total	50%	10%	40%		

TABLE 7. NEWSPAPER FILES BY TITLE

Newspapers: 2514 years

	CRL files	Years on film	Percent of CRL files on film
Foreign	653	352	54%
All U.S.	1861	944	50%
U.S. ethnic	1529	667	43%
U.S. other	332	277	83%
Total	2514	1296	51%

TABLE 8. NEWSPAPER FILES BY YEARS HELD

Both studies show that of the newspaper categories the collection of U.S. ethnic papers is least available on film, but the earlier figure of about 25% has now increased to 45%, reflecting the increased filming activity in this area in recent years. The overall proportion of the whole newspaper collection estimated to be available in the earlier study was 60-65%. This figure has now gone down to 50%. This of course does not reflect the situation of newspapers as a species; newspapers in general are now more available in microfilm than they were fifteen years ago. As the Center has replaced newsprint files with film purchased from outside sources, however, increasingly what it has left are files for which there is no source of film.

Children's books (Table 9)

Although the children's book collection has always been described by us as being almost entirely 1950 and later in date, this has not been based on any real evidence. To determine the chronological composition, a rapid

sampling was made. In general only date was looked for; paper and bindings were not examined unless defects were patent on pulling the book from the shelf. An unexpected 17% of the collection turned out to be 1950 or earlier. Two defective items were noted; one cracking joint, and one case of brittle paper (in a cheap reprint).

Estimated size of collection: 45,000+ Sample size 586

Condition	Number	Percent
OK	584	99.66%
Defective	2	00.34%
Date		
Pre-1951	101	17.25%
1951+	485	82.75%

TABLE 9. CHILDREN'S BOOKS

Recommendations

The Center is fortunate, in one respect, compared to all other large research libraries, in that with regard to whatever sort of preservation program we may elect to undertake, the use factor needs hardly to be taken into consideration. Use of the collection over all is extremely low, the Center having been expressly designed as a library containing little-used research materials, and since we have closed stacks and nearly 100% of our circulation by interlibrary loan, all outgoing and incoming material can be monitored, Items likely to be endangered by use need not be circulated, so that further damage through use does not occur. Further deterioration through the mere passage of time, should, since all the materials have been housed in a controlled environment since there acquisition by the Center, be minimal, provided that environmental controls can be maintained at an acceptable.

We are not, therefore, faced with a situation where we might be forced to withhold any appreciable amount of material from readers by reason of its condition. The conservation or replacement of any individual items that may be requested is within the capabilities of the present budget structure, and a policy of 'on demand' preservation is in fact in effect at the present time.

Further preservation and conservation efforts beyong those necessary to provide member libraries with requested material should certainly be undertaken, but outside funding will almost certainly be necessary for this. Given the factors noted above, however, we are in a position to plan preservations projects that might attract such finding, rather than having to rush into any sort of miscellaneous salvage operation. We are not in a crisis state yet, but must take appropriate steps to ensure that one does not develop in the future.

General recommendations

Outgoing and incoming material should be monitored more carefully and systematically than is being done at the present time. Any material about which there could be any question should be examined by trained personnel, so that any necessary repairs or conservation/preservation measures are under-

taken before the material is sent out or returned to the shelves.

Older volumes often sustain damage in transit from the requesting library. For example, if several volumes are placed loosely in a carton, they will jolt about in it, and the textblock will break loose from the case. It is questionable whether an attempt to educate members in imporoved packing methods would have much effect, but perhaps this should be tried. Center packing methods should also be reviewed to be sure that we are not sinning ourselves in this respect.

Greater care should be taken of materials in transit between the two Center buildings, and between the Center and Photoduplication. Some sort of equipment in the nature of large trays should be obtained for the transportation of fragile newspaper volumes and wrapped newsprint.

A repair station should be established in the Kenwood building (possibly in the Cottage Grove building also) for making repairs found to be necessary when material is about to be catalogued, or as it comes and goes on loan. Damaged material noted in the course of day-to-day operations, if the damage warrants immediate attention, should also be repaired. Several persons should be trained in repair techniques, so that repair service is always available, and the work flow of other departments is not held up.

Since with the exceptions to be noted, none of the Center's materials merit permanent preservation in their original form, microform should be our primary means of preservation. Materials that have not yer become so brittle as to require immediate replacement by microform in order to make them available on loan may be conserved by repair of the original. Commercial rebinding is not recommended, for several reasons. The cost would in many cases exceed the cost of production of a master microform, and wouls certainly exceed the cost of a service microform purchased from an existing master negative. In many cases, the condition of the paper is such that the volume would probably not survive library oversewing, and the cost of hand-resewing of the signatures would be excessive. The Center does have some 18th. century materials on rag paper which could be successfully rebound. It would probably be more appropriate, however, to replace these with microform, and present the originals to some other library.

It may be thought desirable to preserve the original after filming or replacement in some way, in the case of materials containing much illustrative material, particularly coloured illustrations. In the past, in the case, for example, of the Center's files of old photographic journals, the original has been retianed after filming, wrapped in acid-free paper and returned to the shelf marked 'do not circulate - circulate microform.' This seems the best we can do, unless we want to get into deacidification. Alternately, the material might be presented to some other library with a strong collection in the relevant area, who would undertake to preserve it permanently under suitable conditions.

Catalogued collection

In general the shelving conditions of the catalogued collection are satisfactory. There are few instances where material has been jammed too tightly on the shelf. It is not practicable to correct this by shifting the material

on the shelves, since this would involve moving every volume from the offending item to the end of the number sequence in order to create the relieving space. Any volume found to be subjected to damage in its present location should be removed and given a new location. This should be done as such cases are discovered in the course of operations. A systematic check of the entire area of shelving is not warranted, except for the top shelves of those inside ranges in the Cottage grove building where the material comes immediately un- the top flange of the shelving unit.

Steps should be taken to avoid overcrowding of shelves in the future. It is recommended that loose serials issues be tied in bundles not exceeding approxmately three inches in width (this also makes for easier handling when issues must be extracted for loan), and in cases where a gap occurs at the end of a shelf because the next volume is too fat to fit, a filler should be inserted to keep the other material on the shelf vertical. Doubled-up corrugated covered with acid-free paper could probably be used for this.

Binding obviously protects serial issues far better than tying up with tape. It is not recommended that the Center adopt a policy of binding current serials, because of the great expense that would be involved, both in actial binding costs, and in staff time for binding preparation. It would be advisable, however, to find some better method of holding loose serial isseus. Adjustable boxes, or cardstock folders with button-and-string closures are possibilities.

The Center should also whenever possible replace serial titles held in unbound files by bound volumes, when these are offered on deposit. To expedite the handling of deposit requests, it would be desirable to indicate in the shelf list whether the material is bound or unbound. As time permits, it would be useful to extend this information back in the shelflist as far as it goes.

Dissertations

Fragile items, as discovered by the stack staff, should be placed in acid-free envelopes. The bookend on any shelf where the item adjacent to the bookend is in fragile condition, possibly also in those cases where although the paper may still be good, the item has no sort of protective cover.

When a dissertation requested on loan is found to be in poor condition, a master and service microfiche should be produced. Since we will presumably get a better unit cost by fiching a group of items instead of a single title, whenever an item needed for loan is sent to be fiched, an appropriate number of other deteriorated dissertations should be sent with it, at least to the point of getting a much as possible for the minimum charge.

Textbooks

Any necessary repairs should be executed on items before they are circulated. Requested items found to be on very brittle paper should be fiched. Since the number of fiched titles will be minimal (at least for a good many years) some sort of container should be found or devised in which the fiche can be placed and shelved with the hard-copy volumes, in order to eliminate excessive consumption of time in double searching.

Although this collection showed a high proportion of deteriorated paper, it is not recommended that a systematic preservation effort be undertaken at this time, since this could not be supported by the Center's own budget, and this collection is not one that would be likel- to attract outside funding. In view of the very low (even by Center standards) use rate of the older part of this collection, we probably need not feel too concerned about it, if our environment is properly maintained. There is also the possibility of replacement with better-condition copies from the unprocessed deposits.

College catalogues

Deteriorated items, as discovered by the staff, should be placed in acid-free envelopes. If conversion to microform is necessary for an item to circulate, not only the item in question but as much additional material as will fill a standard microfilm reel should be filmed. Filming rather than fiching is recommended here, since the collection consists of chronological runs, and roll film is more economical. The fact that we have current catalogues on fiche is irrelevant, since the current material is arranged on the fiche in such a fashion as to preclude integration of current fiche with older materials in any case.

State documents

Although the state document collection does contain items on brittle paper, and with binding defects, caused by aging, the principal cause of damage at the present time, and a potential cause of extensive damage as the materials age, is the conditions under which much of the collection is shelved at the present time. This has been referred to in the first part of this report, and it cannot be overemphasized that this is a very serious problem which should be addressed immediately. Much of the material is mimeo or other low-grade paper, and will be in very bad shape indeed in not too many years time unless the adverse shelving conditions are corrected.

The collection as it now exists in the Cottage Grove building is finite, except for possible additions of retrospective material by deposit. It is recommended that this collection be compacted (in the manner in which the older and overflow foreign documents have been). The extreme crowding of material does not extend over the entire floor; in the shelving assigned to states not prolific in publishing a considerable amount of space is available. It is probable that once the entire retrospective collection has been compacted we would have sufficient empty space available to allow for the compacting of overflow current documents from the Kenwood building. Space for this purpose will certainly be required in fairly near future. Compacting would not only provide better conservation and improved access, but allow for future growth.

This compacting of the state documents would certainly be a major operation, and would have to be done over a period of probably ten or more years. It is not recommended that the collection be catalogued in the orocess (although this probably eliminated the possibility of getting grant money for the project) since this would unduly prolong the compacting process. It is recommended that compacting be begun as soon as possible, rather than any interim palliative measures which would be both labour intensive and unproductive of any long-term solution.

Newspapers

Newsprint files for which a master negative already exists:

The present policy of replacing with film when a requested item is too brittle to circulate covers the situation adewuately. It would be nice, but not necessary from the point of view of preservation to be able to replace entire files with film at one time, rather than piecemeal over many years, but outside funding for such a purpose is unlikely to be available.

Newsprint files for which no master negative exists:

Of the categories of newspapers which can be identified among the Center's collection, the largest unfilmed category is clearly the U.S. ethnic papers. We knew this, and have obtianed a grant for filming, and hope to obtain further grants. We also cooperate with other groups active in this area by making our files available to them for filming.

The next largest unfilmed category is foreign newspapers. These are a problem, since in many cases the runs now held by the Center are very short and incomplete (many long runs have already been replaced with bought film). Even if we could obtain outside funding for a filming project (which is unlikely, given the heterogeneous nature of the collection) the problem of obtaining missing issues and years to complete files would be very great. On the other hand, since the bibliographical checking of the newspaper sample was done almost entirely against NIM only, the situation may be better than it appears; inquiries to foreign sources might discover that more titles have in fact been filmed.

Other collections

The Center has other collections which were not covered by the sampling, but which are known, or by extrapolation from the results of the sample may be supposed, to contain material either already embrittled, or on such grades of paper as will certainly become embrittled in fairly short order. Some examples are the railroad collection, the Civilian Conservation Corps newspapers, the Nuremberg Trials materials, and the OSRD (U.S. Office of Scientific Research and Development, World War II) reports. In some cases film will be available from an outsdie agency (e.g. the U.S. National Archives is filming Nuremberg records), in others, and especially where the Center's collection is unique, such as the collection of CCC camp newspapers, outside funding for a filming project should be sought.

Mold, rot and insect damage

Instances of mold, rot, or insect damage found in the course of the sampling were generally speaking insignificant, and in most cases appear to have occurred prior to the acquisition of the material by the Center.

However, among the materials formerly in the warehouse and now on the fourth floor of the Kenwood building (possiblt also some at Cottage Grove) there are a number of boxes (exact quantity unknown at this time) which evidently got water-soaked while in the warehouse, and the contents of which are badly affected by rot and possibly by mildew or other fungus.

It is recommended that these boxes be extracted where they can be gotten at, and the contents removed, cleaned, and reboxed. Items too badly damaged to be

restored to a circulatable condition should be discarded. Depending on what the material is, a record should be made with a view to possible future replacement.

We seem to have been fortunate in that the damaged material so far identified consists of old newsprint and court briefs, which have been discarded, and South Asian materials, of which we may well have duplicates in other deposits. In this case it might not be considered necessary to keep a record of the discarded items.

Summary of recommendations

Because we do not have (or at any rate are not supposed to have) rare books, microform should be our primary means of preservation. We must, however, maintain our collections in a condition that will permit the production of quality film when filming becomes necessary. Greater care should be taken of all materials, inside the library and in transit. More systemtic monitoring of incoming and outgoing materials should be instituted, with the necessary backup for the performance of essential repair work.

With regard to the catalogued collection, adverse shelving conditions should be corrected when found, and to prevent the development of such in the future, overpacking of shelves should be avoided, and serial issues assembled in smaller bundles, provided with better protection than tape ties. Binding is not recommended, because of the enormous cost, but loose-issue files should be replaced with bound volumes whenever possible.

In the uncatalogued collections, fragile unbound items should be placed in acid-free envelopes, and deteriorated items required for use should be fiched/filmed as appropriate.

Separate and emphatic mention must be made of state documents. If these are to be maintained as a usable collection, compaction (and protection of loose-issue materials) should be begun as soon as possible.

In general, the recommendations can be divided into three groups; those practicec which are already being followed, or which should improved,such as better monitoring of the condition of materials, and the repair or microformatting of materials which cannot be circulated in their present condition; these can be accomplished without any increase in budget. Increases in expenditure, but ones that could probably be absorbed by the Center's own budget would be reuired for a stepped-up repair program, particularly if additional personnel are required, and for microfilming of larger and more coherent units of material. For major microfilming efforts directed at long files, or collections or segments of collections, outside funding will undoubtedly be required, and we shqld seek to identify those parts of our collections which might attract such funding.

APPENDIX A: METHODOLOGY

Because the Center's materials are organized in a number of separate collections, each having its own characteristics, each collection was sampled separately. Sample sizes were taken from tables, using a 95% confidence rate and ±5 reliability factor:

Collection	Size	Sample	Estimated occurrence rate
Catalogued serials and separates	600,000+	384	50%
Dissertations	600,000+	384	50%
State documents	700,000+	384	50%
College catalogues	125,000+	321	30%
Textbooks	85,000+	321	30%

In the event, while we did succeed in getting approximately the right number for the catalogued collection, dissertations, and textbooks, we came out short on college catalogues and state documents, due to time constraints.

Different question sheets were developed for the various collections, based on their known or supposed composition. Copies of the question and recording sheet for the dissertation collection are reproduced on the next page.

Because the various collections are relatively homogeneous within themselves, no extraordinary measures were used to select the actual items examined. The total number of shelves in each collection was counted, or estimated, and then items were selected from every fifteenth, or forty-fifth shelf, or whatever the number might be to assure the right number of samples. Measuring in and counting over to select the actual item to be examined eliminated (one hopes) any unconscious bias on the part of the samplers.

BEST COPY AVAILABLE

Dissertations

Paper

.. breaks on 1st. fold

.. breaks on 2nd.-5th. fold

5. Survives five folds

Cover

.. is cracked, or breaks on 1st. fold

.. breaks in 2nd.-4th. fold

.. Survives 4 folds

.. No cover

6. Casebound, OK

7. Casebound, defective

Pages

.. Loose pages

11. OK

Place

12. Germany

13. France

14. Other

Date

15. pre-1876

16. 1876-1900

17. 1901-1925

18. 1925-1950

19. 1950-

Selection of sample: Examining one dissertation from every fifteenth shelf should give us approximately the right-sized sample (sample size from table: 384). Select item to be examined by measuring 6" from the beginning of the shelf, and counting over three items (this is to eliminate the tendency to grab a stout or prominent item.. If there is less than 6" of material on the shelf, take the third item from the beginning of the shelf.

DISSERTATIONS

Sample no	Paper		Cover							Pages		Place		Date				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1		X				X					X			X			X		
2			X			X					X			X					X
3			X			X					X	X							X
4			X			X					X			X				X	
5			X			X					X	X							X
6		X						X			X			X				X	
7			X			X					X		X						X
8	X						X			X		X					X		
9			X			X					X	X							X
10			X			X					X	X							X
11			X			X					X	X					X		
12		X					X			X		X						X	
13	X						X				X	X					X		
14			X				X				X	X					X		
15			X			X					X			X					X
16			X			X					X	X							X
17			X				X				X	X						X	
18			X			X				X				X					X
19			X			X					X	X							X
20	X						X			X		X					X		

APPENDIX B: COMPOSITION OF THE COLLECTIONS BY DATE

	Number	Percent
Catalogued collection:		
Pre-1701	0	0
1701-1800	1	.3%
1801-1850	8	2.1%
1851-1900	54	14.0%
1901-1950	171	44.3%
1951+	152	39.4%
Dissertations:		
Pre-1876	15	4.2%
1876-1900	34	9.4%
1901-1925	63	17.5%
1926-1950	74	20.5%
1951+	175	48.5%
Textbooks:		
Pre-1801	0	0
1801-1850	13	4.1%
1851-1900	59	18.6%
1901-1950	189	59.4%
1951+	55	17.3%
No date found	2	.6%
College catalogues:		
Pre-1901	26	11.5%
1901+	200	88.5%
State Documents:		
Pre-1952	115	44.4%
1952+	144	55.6%
Children's books:		
Pre-1951	101	17.25%
1951+	485	82.75%